

HOW TO START A FINDINGS ARCHIVE ON A SUBJECT OTHER THAN HAPPINESS

Using techniques developed for the World Database of Happiness

by Ruut Veenhoven, April, 2024

ABSTRACT

A *findings archive* is a tool for supporting research synthesis. It involves standardized descriptions of research findings, both distributional findings and correlational findings. These descriptions serve as a preliminary step in research synthesis, for narrative reviews as well as for quantitative meta-analyses.

A findings-archive facilitates research synthesis in the following ways:

- 1) Continuous gathering research findings on a subject.
- 2) Comparable description of these findings on electronic *finding pages* using a standard format and terminology.
- 3) Ordering of these findings by subject, research methods and populations.
- 4) Presentation of the findings in review papers using links to online findings pages on which readers find full detail.

The technique of a findings archive was developed for the synthesis of research on happiness. The method can also be used for other subjects. In this paper, I describe how the software of the World Database of Happiness can be adjusted to other topics. The software is Open Access.

Ways to obtain to free copies of the software are described in section 8 of this paper.

Keywords: Accumulation of knowledge, Research synthesis, Findings archive.

1 THE TECHNIQUE

1.1 What is a 'Findings Archive'?

A *findings archive* is a support system for research synthesis. It consists of electronic *finding pages* on which research findings are described in a standard format and terminology. An example of a findings page is given on [Figure 1](#).

Finding pages can be sorted in several ways, such as on the people investigated (public, place and time) and the research methods used, such as the design of the study (longitudinal, experimental) and statistics used.

A findings archive is

- NOT a 'bibliography', though it includes one. A findings archive does not list publications in the first place but *outcomes* of empirical research, as reported in scientific publications.
- NOT a 'data archive'; it does not contain raw primary data but presents *processed data* such as means and correlations.
- NOT a collection of 'abstracts'; The archive contains descriptions of observations only, not conclusions based on these.

1.2 Functions of a Findings Archive

The technique of a findings archive supports research synthesis in the following ways.

Gathering research findings

The technique supports the initial stages of research synthesis of *collecting* research findings on a particular topic. The system enables for *continuous* collection of research findings. When added to synthetic papers as an open source, it can be updated later by colleague scientists who build on your work on the subject. This will prevent that your research synthesis remains a one-time shot.

Description of research findings

Research findings are described on electronic *finding pages* in a *standard format* that provides information on 1) the people investigated, 2) the operationalization of the variables and 3) the observed association between these.

The descriptions use a *standard terminology* for denoting the variables involved as well as for technical terms. This is to avoid the terminological babel that typically hinders the accumulation of knowledge in the social sciences.

Observed means and correlations are transformed to comparable metrics as far as possible.

Sorting of research findings

The finding pages are sorted in several ways, such as by subject, research methods used and populations investigated. The website allows for searches on several of these features together.

Presentation of findings

The technique facilitates the *reporting* of research findings in review papers using links to the electronic finding pages in the archive. This allows presentation of a lot of findings in an easy to overview tabular format. An example of such presentation is given on [Figure 2](#).

The technique of a findings archive is particularly suited for keeping an overview in an expanding field of empirical research.

1.3 Building blocks of a findings-archive

A findings-archive consists of interlinked electronic *pages* which present information in a standardized format and terminology. There are pages on:

1. The publication in which an empirical study was reported.
2. Design of that study
3. The measure(s) of the focal variable used in that study (such as happiness)
4. The observed scores on that measure in the study (distributional finding)
5. The observed association between focal variable and other variables (correlational finding)

The latter *finding pages* (4 and 5) contain links to the pages 1, 2 and 3.

These kinds of pages are gathered in *collections*, from which reports can be extracted, as depicted visually on [Figure 3](#)

1.4 Steps in harvesting research findings

The gathering of research findings on a particular subject involves the following steps.

Collection of publications

A findings-archive starts with a collection of publications in which research findings on a particular subject are reported. The system can handle any topic; objective variables, such as income or illness as well as subjective variables such as trust and political preference. Whatever the topic, meaningful gathering of research findings requires a sharp definition of the subject at hand. An illustrative delineation of the concept of happiness is found [here](#).

Selection of studies

Publications are selected for 1) Report of findings that fit with the definition of the focal subject. Such fitting findings can be a side issue in the publication. 2) Use of acceptable indicators of the focal subject and 3) Other inclusion criteria the investigator may choose, such as limitation to a particular population (e.g., elderly) or method (e.g., longitudinal).

Description of findings

Research findings are described on electronic *finding pages* using a standard format and terminology (cf. section 1.1). You can see [here](#) how this is done in the World Database of Happiness.

Sorting of findings

Two kinds of research findings are discerned 1) *distributional findings*, such as means and standard deviations and 2) *correlational findings*, such as differences in means and regression coefficients. In its application to happiness, the distributional findings are about how happy people are and correlational findings about the things that go together with more or less happiness.

Distributional findings are further sorted into 1) *populations* where the findings have been observed, such as by public, place and, 2) the metrics with which the observed distributions are characterized, e.g., median and skew. Correlational findings are further classified by a) *subjects* and b) *research methods* used to quantify the association, such as sampling and statistical analysis.

This approach is depicted for the World Database of Happiness in [Figure 4](#). Entry starts with a description of the **publications** in which studies on the focal subject are reported. This description involves a classification by the main topics addressed in the studies. Next, studies are selected in two steps, 1) studies that report an empirical investigation and from these 2) empirical studies in which at least one valid measure of the focal variable was used and the results of which are, as such, eligible for description on finding pages.

1.5 Software

The software consists of three apps. See [Figure 5](#).

1. At the basis of the archive is a Microsoft-Access database, which can be assessed at any place in the world and to which several persons can add at the same time. This database can be used as a stand-alone for small topics as explained below in section 3.1. For bigger topics with presentation on internet, it serves merely for the input of data to an
2. Azure Microsoft-SQL database in the cloud from which
3. A website in Word Press is fed.

For application on big topics with presentation on internet, one could of course think

of a two-step approach, in which the date is directly entered in an SQL database. Yet starting with a Microsoft-Access database has several advantages: a) Microsoft-Access involves many standard functionalities, is widely available and is likely to be kept up-to-date in the future by the Microsoft company. b) Microsoft-Access communicates well with Microsoft-Azure SQL database which is required for feeding the website and c) the Microsoft-Access can be used as a stand-alone source, as we will see in section 3.1.

1.6 Creators of this technique

The technique of a findings archive is a brainchild of Ruut Veenhoven, who developed it in a series of source books in the 1980s and early 1990s. These books were digitalized and included in a Microsoft-Access database by Henk DeHeer in the late 1990s, who subsequently made most of the findings available on an initial website that went live in 1998. After the death of Henk DeHeer in 2006, Fredrik Radema took over and further developed the Access database and the presentation of findings on a website.

The website was renewed in the late 2010s with the help of the library of Erasmus University (Peter VanHuistede, Jos Westerbeke and Jasper OpdeCoul), the IT department of Erasmus University (Ferry DeGroot, Philip Brands, Omar Gabriel-Teller, Rebecca Reehorst) and the Happiness Research Organization in Germany (Stephan Erdtmann). Ivonne Buijt refined the archive on several points.

2 WHY START A NEW FINDINGS-ARCHIVE?

2.1 Why in your field?

The number of research findings is growing exponentially in most fields of scientific inquiry and it becomes therefore increasingly difficult to oversee the available findings, even for specialists. As a result, many findings get lost. Accumulation of knowledge does not happen automatically on the Academic Forum but requires that all the available findings are brought together and be described in a comparable way. Though this entails considerable effort, it takes only a fraction of the time and money invested earlier for the production of the research findings that are 'harvested'.

2.2 Why use the software of the World Database of Happiness?

The World Database of Happiness started in 1984 as a [sourcebook](#) and was subsequently extended in a 5 volume book series in the 1990s, of which one volume was a [bibliography](#), a second volume reviewed the then available distributional findings on [happiness in nations](#) and 3 volumes on [correlates of happiness](#). These books were digitalized and subsequently integrated in a Microsoft-Access database, which on its turn came to feed a website. To date (2024), the latest version is available at <https://worlddatabaseofhappiness.eur.nl>

This development took some 45 years and involved a lot of work by many people. Though development of a new findings archive will now be much easier, you better not try to find out the wheel again. In my view, it is more efficient to build on the existing software of the World Database of Happiness and adjust that to your subject and situation.

3 OPTIONS FOR STARTING A NEW FINDINGS ARCHIVE

An easy step-in option is to use the Microsoft-Access database as a stand-alone. This will do when you prepare for a research synthesis on a small topic and cover no more than a hundred findings. Presentation on internet is preferable anyway as explained in section 3.3 below. For that purpose you will additionally need the Microsoft-Azure SQL database and a web-designer such as WordPress.

3.1 Stand-alone Microsoft-Access database 2017

This basic database provides various forms on which you can enter aspects of the research findings you gather, such as a form to describe the publication from which you take the data, a form to describe the design of the study and forms on which distributional and correlational findings are noted. All forms draw on classifications, such as on the kind of statistics used for quantifying the strengths of observed associations.

Finding pages

All this information is automatically brought together in the *finding pages* of which the findings archive consists. See [Figure 1](#).

Finding reports

From the Microsoft Access database you can generate well readable 'reports', which are collections of 'finding-pages'. Reports can be printed on paper and/or saved as an electronic file. You can use that output as an appendix in reports of a research synthesis on your topic. This will make your conclusions controllable for the reader and is analogous to providing a dataset to reports of empirical studies, which is increasingly required by scientific journals. Giving the open access to this source material will also allow colleague scholars to build on your collection later (cf. section 1.3).

Links to text in review papers

When used as a stand-alone, the generated finding pages can be used as an appendix on which readers can find full detail about the findings reviewed. This is easier done in combination with a website but can also be done using the Microsoft-Access database as a stand-alone, as is further explained at the end of section 3.3.

3.2 Presentation on Internet

Additional presentation on the internet has several advantages: 1) Users have direct access to the findings, no need to delve into the appendices, or worse, check in papers on a reference list. 2) Stronger search tools can be used than standard available in Microsoft-Access and 3) Links can be made from the text of your review

paper to on-line finding pages, which allows a condensed presentation of the available research findings while providing the user with access to full detail. An example of such presentation is given on [Figure 2](#).

Presentation on the internet involves two steps; 1) Using Microsoft-Access to enter findings into a Microsoft-SQL database in the Azure cloud, from which 2) a website is fed, in this case a website made in WordPress.

3.3 Advantages of additional presentation on internet

The advantages of presentation on internet are mainly in the reporting of findings. Using the unique internet addresses of electronic finding pages, you can link to separate findings in the text of your review paper, such as in the summary table given on [Figure 2](#), where each sign links to an online finding page. These electronic pages provide direct access to technical detail about the finding, such as the measures and statistics used. This makes reviews more complete and better controllable than the references at the end of traditional reviews typically do.

Presentation on a website can also provide better *search functions* than standard in Microsoft-Access. Advanced search functions are more required the bigger the field covered by the research synthesis.

When using the Microsoft-Access database as a stand-alone, you can still link finding pages to summary tables in your review paper. Add copies of finding pages in an appendix and make internal links to these in the document. You can do that adding bookmarks to the finding pages in an appendix and next link these to items in the text of your review paper, in particular to items in summary tables.

This will do for research reports without page limit but mostly not for journal articles with a page limit. In that latter case you can make the full research report with all the finding pages available as an on-line appendix, where the reader can still get a view on details of the findings you summarize.

4 HOW TO ADJUST THE DATABASE TO YOUR TOPIC

Maintain the basic structure as given in [Figure 4](#) but remove features that are particular to the subject of happiness. Add features required for your topic.

Remove happiness specific features

Looking into the Microsoft-Access version of the World Database of Happiness, you will see many *classifications* that are particular to the subject of happiness. For instance, the [collection of 'measures of happiness'](#) is quite detailed and involves close to a thousand variants. You may need less than a dozen measures of your core concept. In that case, you can suffice with one table on which you describe these few measures and delete all the sub-classifications made for the subject of happiness.

Keep/adjust features that fit your topic

Some of the features in the database may fit your topic equally well as the subject of happiness. For instance, the classification of nations may be useful for your purpose if you want to chart differences across cultures. Likewise, the classification of sampling methods may fit your topic as well as the classification of statistics. Since research method evolve over time, you may add new methods presented in the studies you review.

Add features particular to your topic

Your topic may require special features; for example, if your aim is to take stock of the research findings on the effects of rehabilitation of criminals, you will need classifications of crimes, sentences and possibly family background. Going through the detailed classifications of the World Database of Happiness may alert you to relevant topics.

Classifications evolve over time anyway when you meet new topics in the findings you enter. The continuous extension and re-organization of the classifications is an essential part in the process of research synthesis. The id-numbers in the classifications tell you what features have been added lastly.

5 TECHNICAL REQUIREMENTS

Necessities

For using the Microsoft-Access database as a **stand-alone**, you need no more than

- a. Microsoft-Access, an app in Microsoft-Office
- b. A copy of the 2017 version of the database in Ms-Access

For the more advanced **presentation on internet** the following requirements must be met.

1. An account at an internet provider on which you can host the website, typically a scientific institute.
2. A subscription to Microsoft Azure: [https://azure.microsoft.com/ Where you can host the Microsoft-SQL database](https://azure.microsoft.com/Where you can host the Microsoft-SQL database).
3. A copy of the latest Microsoft Access database as used for entering data on happiness in a [Microsoft](#)-SQL database. Using this Access database you can adjust and add tables to your topic.
4. A copy of the [Microsoft](#)-SQL database with tables only; that is, data on happiness removed.
5. A copy of the website in WordPress, which you may adjust to your topic.
6. A copy of the program to link the Azure Microsoft-SQL database to the website in WordPress

How to get the programs 3, 4, 5 and 6 is explained in section 8.

5.2 What technical support do you need?

Though the software is not high-tech, you will need support of a professional who is acquainted with the following programs.

For running the Ms-Access database

- Microsoft-Access: the standard database in Microsoft-Office
- Visual Basic for Applications (VBA) for Office, a simple but powerful programming language that you can use to extend Office applications

Additionally for presentation on internet

- Azure Microsoft-SQL database.
- WordPress: a much used and user-friendly website manager.
- Elastic Search and PHP for the connection between the SQL database and the website.

Without such expertise you will get lost.

6 HOW TO NAME YOUR VERSION

I advise to use the term *findings archive* and the *subject* in the name; e.g., 'Finding archive on home-ownership'. Note the time span of findings gathered (e.g., 'since the 1960s) and the populations in which the findings were gathered (e.g., 'Families in developed nations") .

Consider making a link to a description of the findings-archive technique on the start page, such as to <http://journalijisr.com/sites/default/files/issues-pdf/IJISRR-728.pdf>

7 HOW TO REFER TO THE WORK ON WHICH YOU BUILD

Cite the application of this technique on the subject of happiness as:

Veenhoven, R. World Database of Happiness: Archive of research findings on the subjective enjoyment of life. Version 1. Erasmus Happiness Economics Research Organization, Erasmus University Rotterdam, Netherlands.

Available at: <https://worlddatabaseofhappiness.eur.nl>

Cite the technique of a findings archive as:

Veenhoven, R., Buijt, I. & Burger, M. (2022) [On-line 'findings archive': A new tool for research synthesis.](#) International Journal of Innovation Scientific Research and Review, 4 (5) 2774-2784

8 WHERE TO GET COPIES OF THE FILES

Copies will be provided on request by the Library of Erasmus University Rotterdam. An application can be made using this link <https://eur-nl.libwizard.com/f/WDH>

You will receive a form on which you provide information on who you are and what you plan to do with the copy.

Once submitted you will get a download link to a zipped file with the following 3 sub files.

- **WDH-2024-MS-Access-SQL-website**
To be used for continuation of the database as a whole, continuation of parts of the database or use of the finding archive technique for another subject than happiness
- **WDH-2017-MS-Access**
To be used for small scale finding archives on other subjects than happiness using MS-Access as a stand-alone (no SQL database, no website)
- **WDH-Documentation**
Manuals and instructions on using WDH

All provided copies of WDH are version 'World Database of Happiness Version 1'

The 2024 versions will be updated to later years as-long-as I maintain the World Database of Happiness. When I close the database, the last version will be saved as 'World Database of Happiness version 1'.

For the purpose of creating a findings archive on another subject than happiness you do not need the most recent version of the World Database of happiness.

For the purpose of using the Access database as a stand-alone for small scale collections of research findings on other subjects than happiness, you need only the WDH-AccessDatabase2017-TablesOnly.mdb to work on and WDH-access-FullVersion2017.mdb to see how that will look like. For application of the technique on bigger issues you need all other files.

9 WHERE TO CALL FOR FURTHER INFORMATION

Though there is much information to be found in the software and in verbal descriptions of the technique, you may need more information to start a new findings-archive. In that case, you can knock the following doors.

9.1 Organizations

The World Database of Happiness is hosted by the university library of Erasmus University Rotterdam. E-mail wdh.library@eur.nl.

You can also contact the [Foundation for the study of Happiness](https://stichtingstudiegeluk.site), the aim of which is to keep the World Database of Happiness and its underlying technique available. The Foundation keeps track of the applicants for copies of the database and their aims which you may want to contact. The website of the Foundation is <https://stichtingstudiegeluk.site>. On this site you find a contact form.

9.2 Developers of the Finding Archive

You can also contact the people involved in the development of this tool, as mentioned below.

Developers of the Microsoft-Access database

This basic database was initially designed by the late Henk DeHeer and was further developed by Fredrik Radema, who can be contacted at radema@ese.eur.nl or privately at radema30@gmail.com

Developers of the storage in a Microsoft Azure SQL database

The above-mentioned Fredrik Radema together with Jos Westerbeke: jos.westerbeke@eur.nl and Jasper OpdeCoul jasper.opdecoul@eur.nl

Developers of the website

The website in WordPress and link to that using Microsoft-Azure was developed with the help of [Erasmus IT Services](#), section Web and App Development, the following staff members in particular:

- Philip Brands: philip.brands@eur.nl
- Ferry de Groot: ferrydegroot@eur.nl
- Omar Gabriel-Tellers: omar.tellers@eur.nl
- Manoeska Stolk: manoeska.stolk@eur.nl (head department)

9.3 Storage at Erasmus University library

The library of Erasmus University will keep the website in the air and provides copies

of the files mentioned in section 8 to scientists willing to build on the World Database of Happiness. The following persons have been involved:

- [Lucinda Jones lucinda.jones@eur.nl](mailto:lucinda.jones@eur.nl) (librarian)
- Jasper OpdeCoul jasper.opdecoul@eur.nl (library IT development)
- Jos Westerbeke: jos.westerbeke@eur.nl (library IT development)
- Farzane Zarepour: zahra.zerapour@eur.nl (head library IT development)

9.4 Web archive

If all the above might fail, such as when Erasmus University stopped hosting the World Database of Happiness and the Foundation for the study of happiness does not exist anymore, you can still find clues in the last copy which you can retrieve using the Way Back Machine of the Internet Archive. Go to <https://web.archive.org/web/2/http://worlddatabaseofhappiness.eur.nl/>

REFERENCES

Veenhoven, R. (2009)

[World Database of Happiness: Tool for dealing with the 'data-deluge](#)

Psychological Topics (special issue on Positive Psychology) 18: 221-246

Veenhoven, R. (2011)

[World Database of Happiness: Example of a focused 'Findings Archive'](#)

Working paper No. 169, German Data Forum RatSWD, February 2011

Veenhoven, R., Buijt, I. & Burger, M. (2022)

[On-line 'findings archive': A new tool for research synthesis](#)

International Journal of Innovation Scientific Research and Review, 4 (5) 2774-2784. [Open Access](#)

Also published as [EHERO working paper 2021-5](#)

Figure 1 Example of an electronic ‘Finding page’

Study [Sacks et al. \(2010\): study ZZ World samples 2005](#)

Public:	18+ aged general public, 131 nations 2005-2008
Survey name:	INT-Gallup World Poll combined waves
Sample:	
Respondents:	N = 291383
Non Response:	
Assessment:	Multiple assesment methods CATI in developed nations, mostly face-to-face in developing nations

Correlate

Authors's Label	GDP/capita
Our Classification	NATION: ECONOMY » ... » Purchasing power ('real' GNP pc)
Remarks	Data World Bank
Operationalization	Real GDP/capita (log)

Observed Relation with Happiness

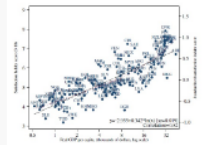
Happiness Measure	Statistics	Elaboration / Remarks
C-BW-c-sq-l-11-a	$b = +.36$ $p < .01$	INDIVIDUAL happiness by GNP per capita in nation B without controls
C-BW-c-sq-l-11-a	$b = +.38$ $p < .01$	b controlled for: - age - sexe
C-BW-c-sq-l-11-a	$b = +.34$ $p < .01$	AVERAGE happiness by GDP pc in nation 

Figure 2
Example of a presentation of research findings using links to online finding pages

24 Research findings in correlation between economic growth and change of average happiness in nations

+1	
+0.9	
+0.8	
+0.7	
+0.6	3
+0.5	1 8
+0.4	1 1
+0.3	1 4
+0,2	0 1 3 4
+0,1	7
+0.0	01 01 01 01 02 02 03 05 06 08 1 7 8
-0.1	
-0,2	
-0,3	
-0.4	
-0.5	
-0.6	
-0,7	
-0.8	
-0.9	
-1,0	

Each sign represents a correlational finding reported in the World Database of Happiness. Use Control+click to see the details.

All **blue** numbers link to findings that are significant at the 5%-level. Orange findings are not significant at the 5%-level.

Further examples of summary presentations are found [here](#).

Figure 3
Building blocks of a finding archive

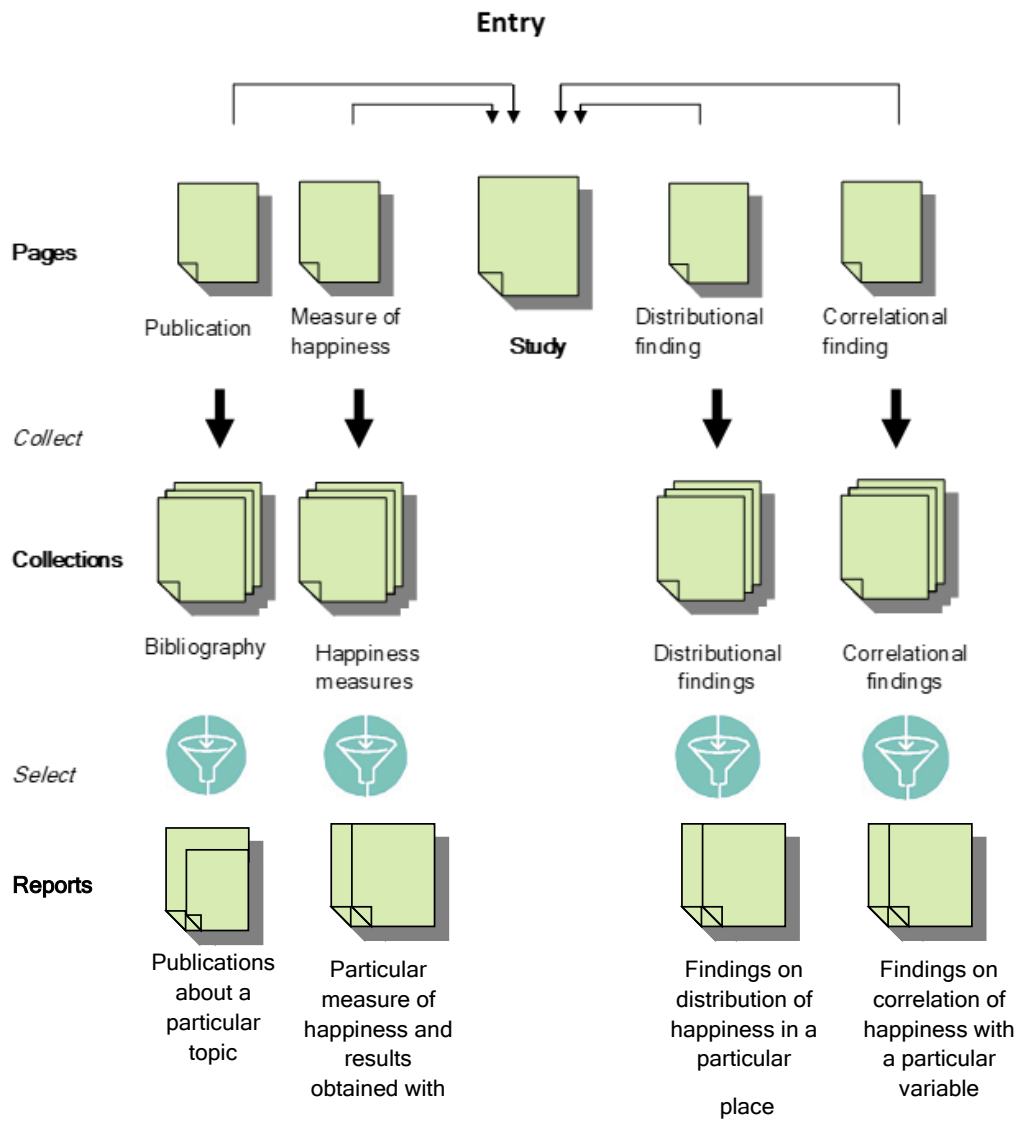
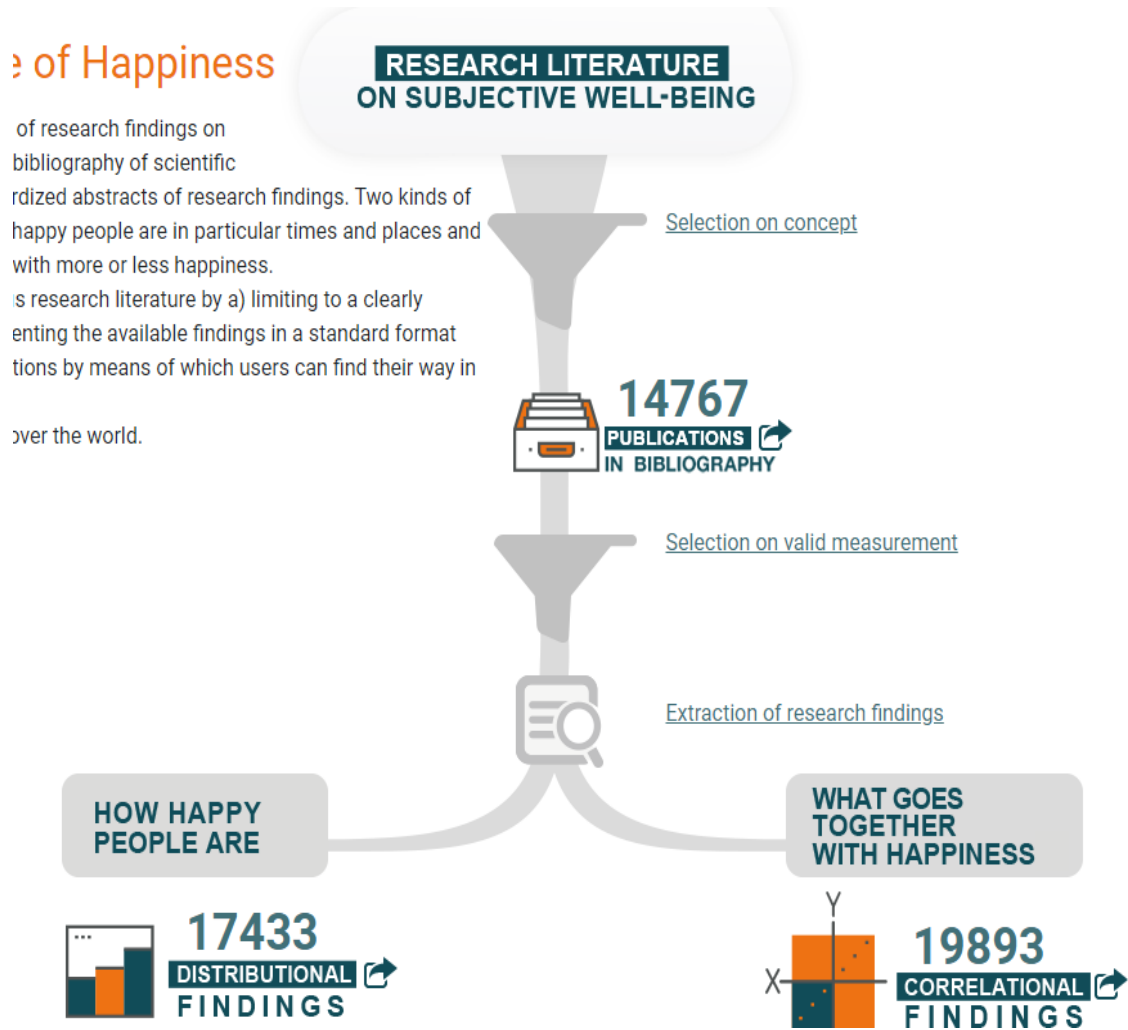


Figure 4
Structure of the World Database of Happiness



Structure of Happiness

of research findings on bibliography of scientific standardized abstracts of research findings. Two kinds of happy people are in particular times and places and with more or less happiness. s research literature by a) limiting to a clearly presenting the available findings in a standard format tions by means of which users can find their way in over the world.

Figure 5
Software elements in the World Database of Happiness

Entering findings

Ms-Access database



Ms-Azure SQL database



Presentation on internet

Website build in WordPress



WORLD DATABASE OF HAPPINESS
 ARCHIVE OF RESEARCH FINDINGS ON SUBJECTIVE ENJOYMENT OF LIFE

[This database](#) | [Collections](#) | [Search](#) | [Reports](#) | [Related](#) | [Research Field](#) | [FAQs](#) | [About us](#) | [Join us](#)

Harvesting Happiness Research

In order to get happier, we must know what makes us happy. Policy makers must know in what kinds of societies and organizations people feel happiest. Individuals must know what ways of life tend to add most to the happiness of their kind of people.

Scientific research on happiness is booming, but its results are difficult to overview, due to terminological Babel and the growing number of studies, which is now passed more than 800 each year.

In the World Database of Happiness, we gather all the research findings on happiness in the sense of life-satisfaction. We describe these findings in a standard format and terminology on electronic 'finding pages' which are sorted by subject, place, time and methodology. This provides an overview of the available research findings on happiness and prepares for quantitative research synthesis. For more detail read 'What is this World Database of Happiness?'

Key points in [中文](#) [Deutsch](#) [English](#) [Español](#) [Français](#) [Nederlands](#)

[How to search in this source](#)

RESEARCH LITERATURE ON SUBJECTIVE WELL-BEING

Selection on concept

15757 PUBLICATIONS IN BIBLIOGRAPHY

Selection on valid measurement

Extraction of research findings

HOW HAPPY PEOPLE ARE

23076 DISTRIBUTIONAL FINDINGS

WHAT GOES TOGETHER WITH HAPPINESS

22827 CORRELATIONAL FINDINGS